

# *Gulf Cooperation Council*

## 👉 EDICT OF GOVERNMENT 👈

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GSO 299 (2012) (English): Apples (Draft Standard)



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هيئة التقييس لدول مجلس التعاون لدول الخليج العربية  
GCC STANDARDIZATION ORGANIZATION (GSO)

مشروع نهائي

GSO 05/FDS /CAC 299 :2012(E)  
(Codex Stan 299:2010 MOD.)

التفاح  
Apples

إعداد  
اللجنة الفنية الخليجية لقطاع المنتجات الغذائية والزراعية

هذه الوثيقة مشروع لمواصفة قياسية خليجية تم توزيعها لإبداء الرأي والملحوظات بشأنها، لذلك فإنها عرضة للتغيير والتبديل، ولا يجوز الرجوع إليها كمواصفة قياسية خليجية إلا بعد اعتمادها من مجلس إدارة الهيئة.

رقم التصنيف الدولي: 67.080.10

## تقديم

هيئة التقييس لدول مجلس التعاون لدول الخليج العربية هيئة إقليمية تضم في عضويتها الأجهزة الوطنية للمواصفات والمقاييس في دول الخليج العربية، ومن مهام الهيئة إعداد المواصفات القياسية الخليجية بواسطة لجان فنية متخصصة.

وقد قامت هيئة التقييس لدول مجلس التعاون لدول الخليج العربية ضمن برنامج عمل اللجنة الفنية رقم 5 "اللجنة الفنية الخليجية لقطاع مواصفات المنتجات الغذائية والزراعية" تحديث بتبني المواصفة القياسية الدولية رقم 299 " التفاح " والتي أصدرتها "هيئة الدستور الغذائي". وقامت (مملكة البحرين) بإعداد مشروع هذه المواصفة.

وقد اعتمدت هذه المواصفة كلائحة فنية خليجية مع إدخال بعض التعديلات الفنية التالية:

- إضافة بند المراجع التكميلية.
  - إضافة بند جديد تحت البند رقم 1/3.
- على أن تلغى المواصفة الخليجية رقم 1990/463 "التفاح" وتحل محلها.
- وذلك في اجتماع مجلس إدارة الهيئة رقم ( )، الذي عقد بتاريخ / / هـ، الموافق / / م.

## Foreword

GCC Standardization Organization (GSO) is a regional Organization which consists of the National Standards Bodies of GCC member States. One of GSO main functions is to issue Gulf Standards /Technical regulations through specialized technical committees (TCs).

GSO through the technical program of committee TC No.5: " Gulf technical committee for Food & Agricultural standards " has adopted the International Standard No. : 299"Apples" issued by (Codex Alimentarius). The Draft Standard has been prepared by (Kingdom of Bahrain).

This standard has been approved as Gulf Technical Regulation with some technical modifications as follows:

- The addition of complementary references section.
- The addition of a new clause under clause number 3/1.

The standard (463/1990) should be withdrawn and replaced by this standard.

by GSO Board of Directors in its meeting No..../.... held on / / H , / / G

## Apples

### 1. Scope

This Standard applies to fruits of commercial varieties (cultivars) of apples grown from *Malus domestica Borkh.*, of the *Rosaceae* family, to be supplied fresh to the consumer, after preparation and packaging. Apples for industrial processing are excluded.

### 2 Complimentary references:

- 2/1 GSO 9 "Labeling of prepackaged food stuffs"
- 2/2 GSO 1016 "Microbiological Criteria for foodstuffs – Part 1"
- 2/3 GSO/CAC 193 "General Standard for contaminants & toxins in food"
- 2/4 Codex Standard which the GSO will be approved :CAC/RCP 44 "Recommended International Code of Practice for Packaging and Transport of Fresh Fruits and Vegetables".
- 2/5 GSO No. (1694) "General principles of food hygiene".
- 2/6 Codex Standard which the GSO will be approved :CAC/RCP 53 "Code of Hygienic Practice for Fresh Fruits and Vegetables".
- 2/7 Standard which the GSO will be approved concerning with: " food additives".
- 2/8 GSO (382, 383): "Maximum allowable limits of pesticides residue in agricultural and food products- Part 1/Part2".

### 3. Provisions concerning quality

#### 3/1 Minimum requirements

In all classes, subject to the special provisions for each class and the tolerances allowed, the apples must be:

- whole, the stalk (stem) may be missing, provided the break is clean and the adjacent skin is not damaged;
- sound, produce affected by rotting or deterioration such as to make it unfit for consumption is excluded;
- firm<sup>1</sup>;
- clean, practically free of any visible foreign matter;
- practically free of pests and damage caused by them affecting the general appearance of the produce;
- free of abnormal external moisture, excluding condensation following removal from cold storage;
- free of any foreign smell and/or taste;
- free of damage caused by low and/or high temperatures;
- practically free of signs of dehydration;
- when surface is treated, for example fresh apples coated with glazes or waxes or are treated with other food additives that act as protective coatings and/or help to preserve the freshness and quality of the fruit, it should comply with the standard mentioned under clause 2/7.

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<sup>1</sup> Firmness in this context is used to indicate an appropriate level of maturity of the fruit rather than a stage of ripening and it is acknowledged to vary according to apple varieties.

3/1/1 The apples must have colour that is characteristic of the variety and the area in which they are grown. The development and condition of the apples must be such as to enable them:

- to withstand transport and handling; and
- to arrive in satisfactory condition at the place of destination.

### **3/2 Maturity requirements**

Apples must be at a stage of development that enables them to continue the ripening process and to reach a stage of ripeness required in relation to the varietal characteristics.

In order to verify the minimum maturity requirements some parameters such as: morphological aspects, firmness and refractometric index can be considered.

### **3/3 Classification**

In accordance with the defects allowed in the Annex - Maximum Allowance for Defects, apples are classified in three classes defined below:

#### **3/3/1 "Extra" class**

Apples in this class must be of superior quality. The flesh must be sound. They must be characteristic of the variety. They must be free of defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package<sup>II</sup>.

#### **3/3/2 Class I**

Apples in this class must be of good quality. The flesh must be sound. They must be characteristic of the variety. The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package<sup>II</sup>:

- a slight defect in shape and development;
- a slight defect in colouring;
- slight skin or other defects (see the Annex).

#### **3/3/3 Class II**

This class includes apples which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in Section 2.1 above. The following defects, however, may be allowed, provided the apples retain their essential characteristics as regards the quality, the keeping quality and presentation<sup>II</sup>:

- defects in shape and development;
- defects in colouring;
- skin or other defects (see the Annex).

### **3/4 Colouring**

In all classes, in the absence of national legislation, the following colour codes may be applied except for green and yellow apple varieties:

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II Skin and other defects must not exceed the limits as defined in the Annex.

Code	Percentage of colour
A	75% or more
B	50% or more
C	25% or more
D	Less than 25%

#### **4. Provisions concerning sizing:**

Size is determined by maximum diameter of the equatorial section or by weight of each apple.

For all varieties and all classes the minimum size is 60 mm if measured by diameter or 90 g if measured by weight. Fruit of smaller sizes may be accepted provided the Brix level of the produce meets or exceeds 10.5° Brix and the size is not smaller than 50 mm or 70 g.

#### **5. Provisions concerning tolerances**

Tolerances in respect of quality and size shall be allowed in each lot for produce not satisfying the requirements of the class indicated.

##### **5/1 Quality tolerances**

The application of the following tolerances should take into accounts that at stages following export; products may show in relation to the requirements of the standard:

- a slight lack of freshness and turgidity;
- for products graded in classes other than the "Extra" Class, a slight deterioration due to their development and their tendency to perish.

##### **5/1/1 "Extra" class**

Five percent by number or weight of apples not satisfying the requirements of the class, but meeting those of Class I or, exceptionally, coming within the tolerances of that class.

Included therein shall be allowed not more than 1.0% for apples affected by decay or internal breakdown.

##### **5/1/2 Class I**

Ten percent by number or weight of apples not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class.

Included therein shall be allowed not more than 1 % for apples affected by decay or internal breakdown.

##### **5/1/3 Class II**

Ten percent by number or weight of apples satisfying neither the requirements of the class nor the minimum requirements, with the exception of apples affected by decay or internal breakdown that should not be more than 2 %.

Included therein shall be allowed, a maximum of 2 % by number or weight of fruit which may show the following defects:

- cork like blemishing (bitter pit);
- slight damage or unhealed broken skin/cracks;
- presence of internal feeding insects/pests or damage to the flesh caused by pests<sup>III</sup>.

### **5/2 Size tolerances**

For all classes of fruit subjected to rules of uniformity, 10 % by number or weight of apples not meeting the size indicated on the package.

This tolerance may not be extended to include produce with a size below 50 mm or 70 g if the refractometric index is below 10.5°Brix.

## **6 Provisions concerning presentation:**

### **6/1 Uniformity**

The contents of each package must be uniform and contain only apples of the same origin, quality, size (if sized) and variety. For “Extra” Class, colour should be uniform. Sales packages (of a net weight not exceeding 5 kg) may contain mixtures of varieties and sizes provided they are uniform in quality, and for each variety concerned, its origin. The visible part of the contents of the package must be representative of the entire contents except for mixed sizes and varieties.

The uniformity of apples may be measured in accordance with one of the following options:

#### **A. By diameter:**

The maximum diameter difference of apples in the same package shall be limited to:

- 5 mm if the diameter of the smallest apples is less than 80 mm.
- 12 mm if the diameter of the smallest apple is equal to or over 80 mm.

Or

#### **B. By weight:**

The maximum difference by weight between apples in the same package shall be limited to:

- 15 g if the weight of the smallest apple is 90 g.
- 20 g if the weight of the smallest apple 90 g and over but under 135 g.
- 30 g if the weight of the smallest apple is 135 g and over but under 200 g.
- 40 g if the weight of the smallest apple is 200 g and over but under 300 g.
- 50 g if the weight of the smallest apple is over 300 g.

There is no size uniformity for apples packed loose in the package or sales package.

### **6/2 Packaging**

Apples must be packed in such a way as to protect the produce properly. The materials used inside the package must be new<sup>IV</sup>, clean, and of a quality such as to avoid causing any external or internal damage to the produce.

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<sup>III</sup> This provision applies without prejudice to the applicable plant protection rules.

<sup>IV</sup> For the purposes of this Standard, this includes recycled material of food-grade quality.



The use of materials, particularly of paper or stamps bearing trade specifications is allowed, provided the printing or labeling has been done with non-toxic ink or glue.

Apples shall be packed in each container in compliance with the standard mentioned under clause 2/4.

### **6/2/1 Description of containers**

The containers shall meet the quality, hygiene, ventilation and resistance characteristics to ensure suitable handling, shipping and preserving of the apples. Packages must be free of all foreign matter and smell.

## **7 labelling:**

### **7/1 Consumer packages**

In addition to the requirements of the standard mentioned under clause 2/1, the following specific provisions apply:

#### **7/1/1 Nature of produce**

If the produce is not visible from the outside, each package shall be labelled as to the name of the produce and may be labelled as to name of the variety, class, colour code (if used) and size/weight or the number of pieces presented in rows and layers.

#### **7/2 Non-Retail containers**

Each package must bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside, or in the documents accompanying the shipment. For produce transported in bulk, these particulars must appear on a document accompanying the goods.

##### **7/2/1 Identification**

Name and address of exporter, packer and/or dispatcher. Identification code (optional)<sup>V</sup>.

##### **7/2/2 Nature of produce**

Name of the produce if the contents are not visible from the outside. Name of the variety or varieties (where appropriate).

##### **7/2/3 Origin of produce**

Country of origin and, optionally, district where grown or national, regional or local place name.

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<sup>V</sup> The national legislation of a number of countries requires the explicit declaration of the name and address. However, in the case where a code mark is used, the reference “packer and/or dispatcher (or equivalent abbreviations)” has to be indicated in close connection with the code mark.

- Class;
- Size (if sized);
- Colour code (if used).

**7/2/5 Official Inspection Mark (optional)<sup>VI</sup>**

**8 Contaminants**

8/1 The produce covered by this Standard shall comply with the maximum levels of the standard mentioned under clause 2/3.

8/2 The produce covered by this Standard shall comply with the maximum residue limits for pesticides of the standard mentioned under clause 2/8.

**9 Hygiene**

9/1 It is recommended that the produce covered by the provisions of this Standard be prepared and handled in accordance with the appropriate sections of the standard mentioned under clause 2/5, clause 2/6 and other relevant standards.

9/2 The produce should comply with any microbiological criteria established in accordance with the standard mentioned under clause 2/2.

**Annex**  
**Maximum Allowance For Defects**

Defects Allowed		“Extra” Class	Class I	Class II
Russetting outside Calyx/stem cavity	smooth net-like	3 % of surface area	20 % of surface area	50 % of surface area
	smooth solid	1 % of surface area	5 % of surface area	33 % of surface area
accumulation for both types of russetting should not exceed the following		3 % of surface area	20 % of surface area	50 % of surface area
Accumulated Blemishes & Bruising: - Bruises with slight discoloration; - Scars caused by Scabs <sup>3</sup> ( <i>Venturia inaequalis</i> ); - other defects/blemish including healed hail marks		0.50 cm <sup>2</sup>	1.0 cm <sup>2</sup> 0.25 cm <sup>2</sup> 1.0 cm <sup>2</sup>	1.5 cm <sup>2</sup> <sup>VI</sup> 1.0 cm <sup>2</sup> 2.5 cm <sup>2</sup>
Stem or Calyx cracks (healed or well cured)		----	0.5 cm	1 cm
Maximum length of elongated shaped defects		----	2 cm	4 cm

Russetting can be simply described as a “brownish roughened area or streaks on the skin of the apple”. In some apple varieties russetting is a characteristic of the variety and for others a quality defect. Allowances for russetting will be applied to apple varieties that russetting is not a characteristic of.

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<sup>VI</sup> Bruising with discoloration and dark blemishes not blending with skin color are accepted in this Class.